

***CORYNEBACTERIUM GLUTAMICUM* GENES ENCODING METABOLIC  
PATHWAY PROTEINS**

**Abstract of the Disclosure**

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Isolated nucleic acid molecules, designated MP nucleic acid molecules, which  
encode novel MP proteins from *Corynebacterium glutamicum* are described. The  
invention also provides antisense nucleic acid molecules, recombinant expression  
vectors containing MP nucleic acid molecules, and host cells into which the expression  
10 vectors have been introduced. The invention still further provides isolated MP proteins,  
mutated MP proteins, fusion proteins, antigenic peptides and methods for the  
improvement of production of a desired compound from *C. glutamicum* based on  
genetic engineering of MP genes in this organism.